Notice of Allowability	Application No.	Applicant(s)	
	09/834,802	REDDY ET AL.	
	Examiner	Art Unit	
	Sunray Chang	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *January 20th, 2006*.

2. ☒ The allowed claim(s) is/are *1-22*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The proposed examiner's amendment from applicants was proposed on February 17th, 2006 through email after a telephone interview with Steven J. Laureanti on January 4th, 2006; and proposed amendment by applicants through email on January 10th, 2006; examiner proposed examiner's amendment to applicants through email on January 30th, 2006 and applicants accept proposed examiner's amendment and amending the claims based on examiner's amendment re-proposing amendment on February, 17th, 2006.

The application has been amended as follows to replace independent **claims 1, 11, 12, 15 and 25 – 28;** forth independent **claims 13 and 14** have been cancelled in this amendment:

Claim 1. A component-based distributed software system, the system comprising one or more computer systems each comprising one or more processing units and one or more memory units, the system comprising:

a first container comprising:

at least one server component capable of having a client-server relationship with one or more client components;

one or more server objects having associated data and capable of being supported by the at least one server object; and

one or more client components which are local to the at least one server component;

wherein the first container is capable of containing more than one server component, more then one server object, and more than one client component; and

a second container comprising at least one proxy component, one or more proxy objects capable of being supported by the at least one server object, and one or more client components capable of having a client-server relationship with one or more server components, the one or more client components are remote and distributed from the at least one server component, wherein the second container is capable of containing more than one proxy component, more than one proxy object, and more than one client component, and operable to:

access data associated with one or more of the server objects such that whether the server component is local to or remote from the client component is substantially transparent to the client component;

if the server component is local to the client component, in order to access server object data, execute data access operations optimized for local communications; and

if the server component is remote from the client component, in order to access server object data, access at least one proxy component that is:

within the second container;

supporting one or more proxy objects each providing a local version of a corresponding server object: and

operable to:

provide the client component with access to data associated with a proxy object in response to the client component requesting data associated with the corresponding server object;

execute data access operations optimized for remote communications to access data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects.

Claim 11. A component-based distributed software system, the system comprising one or more computer systems each comprising one or more processing units and one or more memory units, the system comprising:

a first container comprising:

at least one server component capable of having a client-server relationship with one or more client components;

one or more server objects having associated data and capable of being supported by the at least one server object; and

one or more client components which are local to the at least one server component;

wherein the first container is capable of containing more than one server component, more then one server object, and more than one client component; and

a second container comprising at least one proxy component, one or more proxy objects capable of being supported by the at least one server object, and one or more client components capable of having a client-server relationship with one or more server components, the one or more client components are remote and distributed from the at least one server component, wherein the second container is capable of containing more than one proxy component, more than one proxy object, and more than one client component, and operable to:

access data associated with one or more of the server objects according to a scheme allowing the client component to use the same operations to access server object data whether the client component is local to or remote from the server component;

if the server component is local to the s client component, in order to access server object data, execute data access operations optimized for local communications; and

if the server component is remote from the client component, in order to access server object data, access at least one proxy component that is:

within the second container;

supporting one or more proxy objects each providing a local version of a corresponding server object; and

operable to:

provide the client component with access to data associated with a proxy object in response to the client component requesting data associated with the corresponding server object;

execute data access operations optimized for remote communications to access data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects.

Claim 12. A component-based distributed software system, the system comprising one or more computer systems each comprising one or more processing units and one or more memory units, the system comprising:

a first container comprising:

at least one server component capable of having a client-server relationship with one or more client components;

one or more server objects having associated data and capable of being supported by the at least one server object; and

one or more client components which are local to the at least one server component;

wherein the first container is capable of containing more than one server component, more then one server object, and more than one client component; and

a second container comprising at least one proxy component, one or more proxy objects capable of being supported by the at least one server object, and one or more client components capable of having a client-server relationship with one or more server components, the one or more client components are remote and distributed from the at least one server component, wherein the second container is capable of containing more than one proxy component, more than one proxy object, and more than one client component, and operable to:

access data associated with one or more of the server objects, without determining whether the client component is local to or remote from the server component such that whether the server component is local to or remote from the client component is substantially transparent to the client component and such that the client component is allowed to use the same operations to access server object data whether the client component is local to or remote from the server component;

if the server component is local to the client component, in order to access server object data, execute data access operations optimized for local communications; and

if the server component is remote from the client component, in order to access server object data, access at least one proxy component supporting one or more proxy objects each providing a local version of a corresponding server object, the proxy component being within the second container and operable to:

provide the client component with access to data associated with a proxy object in response to the client component requesting data associated with the corresponding server object;

execute data access operations optimized for remote communications to access data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects.

Claim 13. **(Canceled)**

Claim 14. **(Canceled)**

Claim 15. A computer-implemented method of providing data access in a component-based distributed software system, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

receiving a request from a client component, within a first container, for data that is associated with a server object of a server component, the first container is capable of containing more than one server component, more then one server object, and more than one client component;

if the client component is local to the server component, allowing the client component to directly access the requested server object data, the client component operable to execute data access operations optimized for local communications to access server object data;

if the client component is remote from the server component, using a proxy component to provide the client component with local access to proxy object data corresponding to the requested server object data, the proxy component supporting one or more proxy objects each being a local copy of a corresponding server object, the proxy component operable to execute data access operations optimized for remote communications to access data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects;

wherein whether the server component is local to or remote from the client component is substantially transparent to the client component.

Claim 25. A computer-implemented method of providing data access in a component-based distributed software system, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

receiving a request from a client component, within a first container, for data that is associated with a server object of a server component, the first container is capable of containing more than one server component, more then one server object, and more than one client component;

if the client component is local to the server component, allowing the client component to directly access the requested server object data, the client component operable to execute data access operations optimized for local communications to access server object;

if the client component is remote from the server component, using a proxy component to provide the client component with local access to proxy object data corresponding to the requested server object data, the proxy component supporting one or more proxy objects each being a local copy of a corresponding server object, the proxy component operable to execute data access operations optimized for remote communications to access data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects;

the client component using the same operations to access server object data whether the client component is local to or remote from the server component.

Claim 26. A computer-implemented method of providing data access in a component-based distributed software system, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

receiving a request from a client component for data that is associated with a server object of a server component distributed from the client component, the server component being within a first container, the first container is capable of containing more than one proxy component, more than one proxy object, and more than one client component, and the client component being within a second container, the second container is capable of containing more than one server component, more then one server object, and more than one client component, the client component operable to execute data access operations optimized for local communications to access server object data;

if the client component is local to the server component, allowing the client component to directly access the requested server object data;

if the client component is remote from the server component, using a proxy component within the second container to provide the client component with local access to proxy object data corresponding to the requested server object data, the proxy component supporting one or more proxy objects each being a local version of a corresponding server object, the proxy component operable to execute data access operations optimized for remote communications to access data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects;

wherein whether the server component is local to or remote from the client component is substantially transparent to the client component, the client component being able to use the same data access operations whether the client component is local to or remote from the server component.

Claim 27. A computer-implemented method of accessing data in a component-based distributed software system using a client component, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

at the client component, within a first container that is capable of containing more than one server component, more then one server object, and more than one client component, accessing data associated with one or more server objects of a server component that is distributed from the client component, each server object having associated data, the client component accessing the server object data such that whether the server component is local to or remote from the client component is substantially transparent to the client component;

if the client component is local to the server component, allowing the client component to directly access the requested server object data, the client component operable to execute data access operations optimized for local communications to access data associated with one or more server objects;

if the client component is remote from the server component, using a proxy component to provide the client component with local access to proxy object data corresponding to the requested server object data, the proxy component supporting one or more proxy objects each being a local copy of a corresponding server object, the proxy component operable to execute data access operations optimized for remote communications to access the data associated with the corresponding server object; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects.

Claim 28. A computer-implemented method of providing data access in a component-based distributed software system using a proxy component, the proxy component operable to execute data access operations optimized for local communications, the proxy component being within a first container that also contains a client component and is remote from a second container, the first container is capable of containing more than one proxy component, more than one proxy object, and more than one client component, the second container contains a server component supporting one or more server objects having associated data, the second container is capable of containing more than one server component, more then one server object, and more than one client component, the client component being distributed from the server component and operable to execute data access operations optimized for local communications, the method performed using one or more computer systems each comprising one or more processing units and one or more memory units, the method comprising:

supporting one or more proxy objects each providing a local version of a corresponding server object;

providing the client component with access to data associated with a proxy object in response to the client component requesting data associated with the corresponding server object, such that whether the server component is local to or remote from the client component is substantially transparent to the client component and such that data access operations optimized for remote communications are performed when the client component is remote from the server component and data access operations optimized for local communications are performed when the client component is local to the server component; and

substantially immediately reflect all changes to data associated with the proxy objects back to data associated with the corresponding server objects.

REASONS FOR ALLOWANCE

1. This office action is in responsive to the paper filed on January 20th, 2006.

2. The following is an examiner's statement of reasons for allowance:

- The claimed invention is a distributed software system including server components supporting more than one server objects and client components; the server objects are transparent to the client components for data accessing and communication.
- The claimed method include a limitation "the first container is capable of containing more than one server component, more then one server object, and more than one client component; and the second container is capable of containing more than one proxy component, more than one proxy object, and more than one client component".
- The combination of prior art of record does not expressly disclose or suggest the "system" with the feature of "the first container is capable of containing more than one server component, more then one server object, and more than one client component; and the second container is capable of containing more than one proxy component, more than one proxy object, and more than one client component".
- The reference Glass et al. (U.S. Patent No. 6,629,128) discloses a remote proxy generator, single server object, single remote proxy class does not disclose "the first container is capable of containing more than one server component, more then one server object, and more than one client component; and the second container is capable of containing more than one proxy component, more than one proxy object, and more than one client component".

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

4. Claims 6, 7, 13, 14, 20 and 21 have been cancelled.

Claims 1 – 5, 8 – 12, 15 – 19 and 22 – 28 are deemed allowable and have been renumbered to claims 1 – 22 respectfully.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571)272-3682. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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February 17, 2006